STROUD

URBAN DISTRICT COUNCIL.

ANNUAL REPORT

OF

J. MIDDLETON MARTIN,
B.A., M.B., Cantab., D.P.H., Camb.

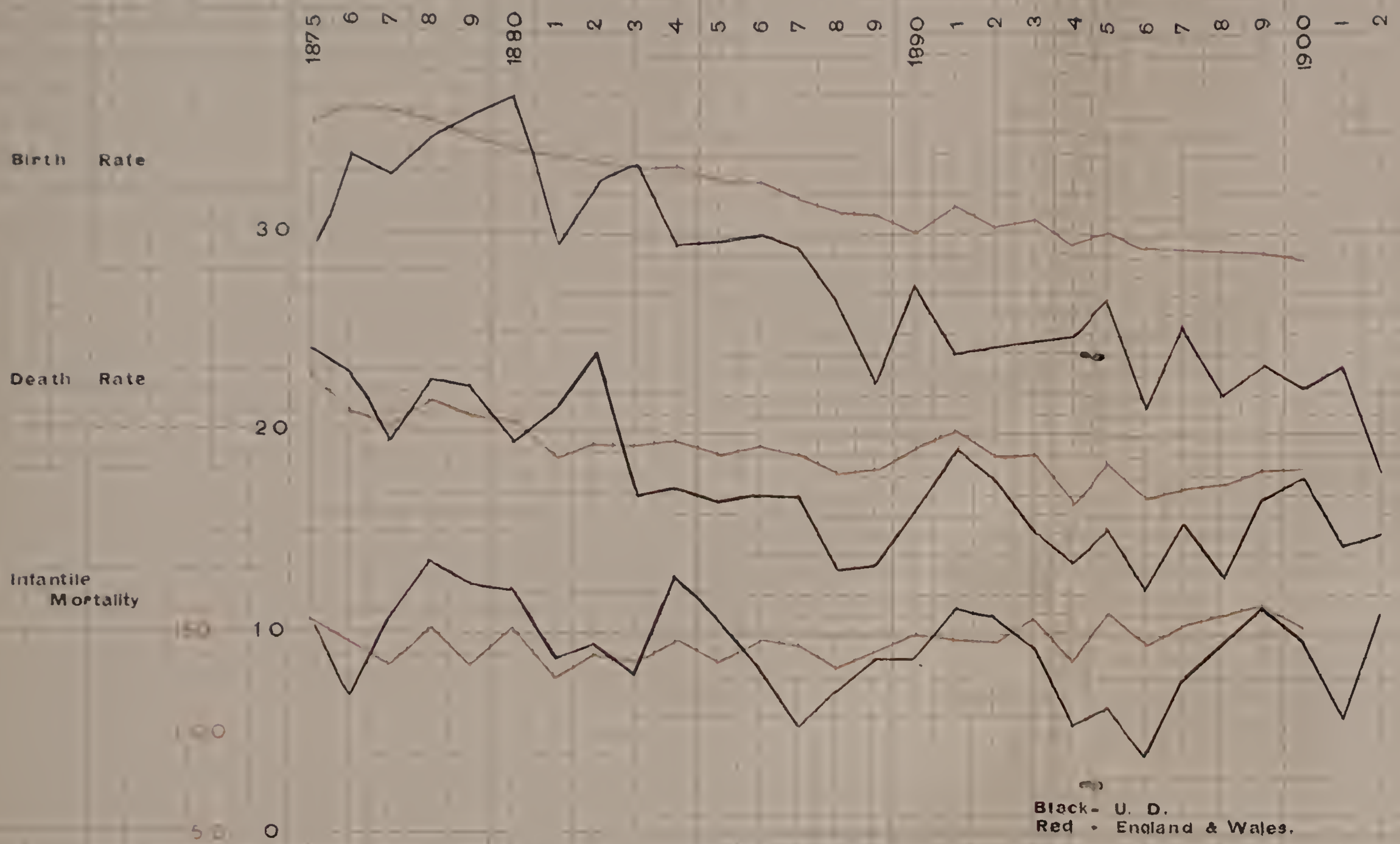
MEDICAL OFFICER OF HEALTH

1902.

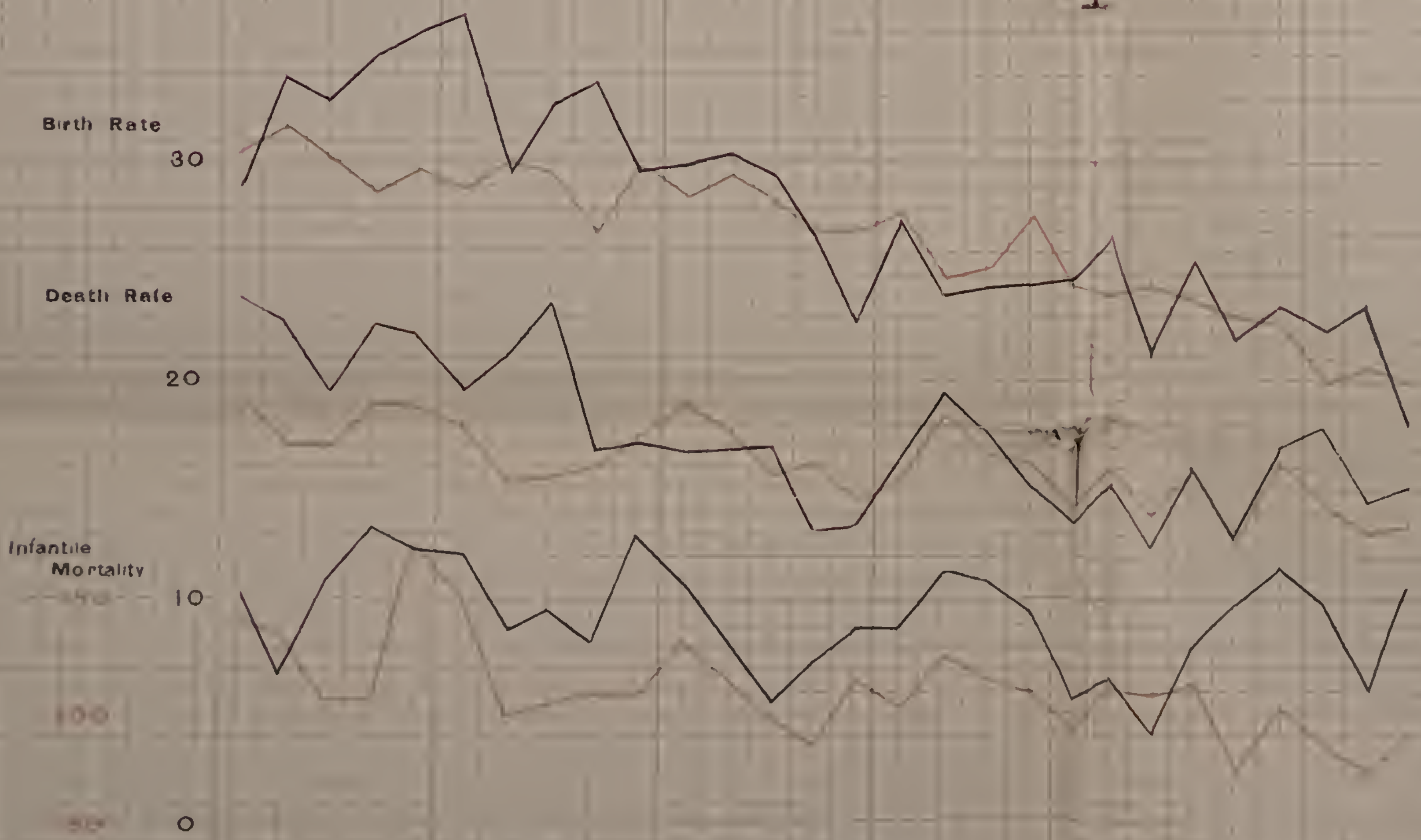
3rd February, 1903

STROUD.
Geo. H. James & Co., Ltd., Stroud Press.

Stroud Urban District.



S. U. D. *V.* England & Wales



S. U. D. *V.* S. R. D.

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STROUD URBAN DISTRICT COUNCIL.

Annual Report

OF THE

Medical Officer of Health

Gentlemen,

In accordance with the general instructions of the Local Government Board, I beg to present my Annual Report for the year 1902.

As it might appear to you that I have gone unnecessarily into detail and history, I will preface my remarks with the two following extracts from the "Memorandum as to Annual Reports of Medical Officers of Health" received last month from the Local Government Board :—

> " The report should be chiefly concerned with the conditions affecting " health in the District and with the means for improving those " conditions. It should contain an account, brought up to the end of " the year under review, of the sanitary circumstances of the district, " and of any improvement or deterioration which may have occured " during the year in these circumstances."
>
> " Care should be taken to report fully and explicitly on the influences " affecting or threatening to affect injuriously the public health in the " district, and on the action which has been taken, or which may still " be needed, with a view to combat those influences. It should be " remembered that these reports are for the information of the (Local " Government) Board and of the County Council, as well as of the " Council of the District, and that a statement of the local circum- " stances and a history of local sanitary questions, which may seem " superfluous for the latter, may often be needed by the former bodies."

In August I attended the Congress held at Exeter, of the Royal Institute of Public Health, as your Delegate, and at the following meeting of the Council I presented a short report of some of the proceedings including the questions of Sewage Disposal and the prevention of Consumption.

The Stroud Urban District surrounded on all sides by the Stroud Rural District comprises an area of 1169 acres, of which 21 are inland water, situated on the western slope of the Cotteswold Hills and almost in the centre of the area drained by the River Frome, where four tributary valleys join the main valley. The elevation above sea-level ranges from 150 to over 600 feet; the upper part of the Town follows the shoulder of the hill and is comparatively more densely populated than the plain in the valley.

The geological structure of the district is very varied, the slopes of the hill being chiefly on the Upper Lias Sands and Clay, while the outcrop of the Inferior Oolite is exposed in the eastern part of the district: the Middle Lias or Marlstone, covered in places by beds of gravel, forms the chief part of the valleys, the Lower Lias appearing at the lowest part of the district.

The Urban District embraces the whole of Stroud and the Uplands Civil Parishes; the area of the former being 974 acres and of the later 195 acres of which 16 and 5 acres respectively are inland water. In 1894 the following changes were made in the boundaries of the Civil Parishes:—

1. Uplands C.P. created out of

		1901
Painswick C.P.	325 houses	1480 population

2. The following Civil Parishes created out of Stroud C.P.

Lypiatt C.P.	64 houses	274 population
Thrupp C.P.	317 ,,	1294 ,,
Whiteshill C.P.	328 ,,	1327 ,,

Lypiatt C.P. being at the same time combined with part of Bisley C.P. to form Bisley-c-Lypiatt C.P.

INDUSTRIES.

The chief industries conducted in the town are dyeing and the manufacture of woollen cloth, and of ready-made clothing. There are also numerous other works of various kinds. A large amount of "home-work" is given out by the ready-made clothing factories.

HOUSE ACCOMMODATION.

The houses are, for the most part, of a substantial character; the older ones are built of local stone and roofed with local stone tiles, while the more recently built houses are mostly of brick roofed with slates. The houses in the Uplands are chiefly of the latter class, but these are also numerous in the newer parts of Stroud. The difference in the houses of the two parts of the Urban District is well brought out by tabulating them according to rateable value, as shewn in the following summary:—*

Rateable Value	Stroud	Uplands	Urban District
Under £6	27.2%	3.3%	23.6
£6 to £20	53.35%	80.55%	57.5%
Over £20	19.4%	16.0%	19.0%

* For these figures I am indebted to the kind assistance of Mr. J. H. Wilson, Rate Collector to the Urban District Council.

In connection with this difference in the housing it will be seen later that there is a corresponding difference in the birth and death rates and infantile mortality in these two divisions of Stroud.

Eave-spouting is almost universally provided, but the down pipes instead of discharging over gullies are often connected directly with drains which are said to sometimes discharge into surface-water drains and sometimes into sewers. In some instances they are used for a supply of soft water and deliver into rain water tanks.

There are about 30 back-to-back houses, and a few back-to-earth houses in the District.

Four new houses have been erected during 1902.

Bye-laws with respect to "New Streets and Buildings" were made by the Local Board of Health on the lines of the "Model Bye Laws" and allowed by the Local Government Board on the 19th of July, 1889. Under these bye-laws, plans for all new buildings have to be submitted to the Council and approved before such buildings can be erected.

ADOPTIVE ACTS.

The Infectious Diseases Notification Act 1889, which was made compulsory by the Extension Act 1899, was adopted by the Local Board of Health on the 10th May, 1892.

The Public Health Acts Amendment Act 1890, Part III was also adopted on the same day.

The Infectious Diseases Prevention Act 1890, was adopted and came into force on the 8th February, 1894.

BYE LAWS.

Bye-laws—following the plan of the model bye-laws—were also made and allowed by the Local Government Board at the same time as those for "New Streets and Buildings," with respect to

1. Nuisances
2. Common Lodging Houses
3. Slaughter Houses.

There are no bye-laws with respect to "Dairies."

COMMON LODGING HOUSES.

There are 4 Common Lodging Houses in the Town which are inspected frequently and generally found to be in a satisfactory state. The total number of lodgers for which the houses are licensed is 83.

SLAUGHTER HOUSES.

There are 9 private slaughter houses in the Urban District, of which 4 are "registered" and 5 "licensed." Some of these are extremely satisfactory but others are not so well constructed as regards flooring &c., or managed so well as they might be. The non-absorbent receptables with closely fitting covers required by Bye-Law No. 15, (Bye Laws for Slaughter Houses) are not provided in every case.

DAIRIES.

The number of dairies registered is 13, but a large proportion of the milk consumed in the Town is brought in from the surrounding district and sold from the milk carts. On the whole the milk shops are fairly satisfactory.

FACTORIES AND WORKSHOPS.

In the Memorandum from the Local Government Board above referred to, special attention is drawn to the Factory and Workshop Act 1902, and to Section 132 of that Act which requires that:—

> "The Medical Officer of Health of every District Council shall, in his "Annual Report to them, report specifically on the administration of "this Act in workshops and workplaces, and he shall send a copy of his "Annual Report, or so much as deals with this subject, to the "Secretary of State."

Two registers are required to be kept by the District Council under this Act:—

1. List of workshops in the District
2. List of outworkers

The former has been made by copying the register of the Factory Inspector and by adding workshops which were not on this register. As regards the latter, the occupiers of factories and workshops have to furnish the District Council of the District in which the factory or workshop is situate with their list of outworkers on or before the 1st February and the 1st August in each year: the combined list has been made as complete as possible, and names have been sent on to other districts as directed.

> "The term "workshop" includes any "premises (not being factories) "in which manual labour is exercised by way of trade or for the "purposes of gain in or incidental to the making, altering, repairing "&c. of any article:" "workplace" has even a wider signification, including "any place where work is done permanently and where "people assemble together to do work permanently of some kind or "other.":—such as *e.g.*—" Stable Yards, Kitchens of Restaurants,"

The duties of the District Council as regards workshops and workplaces generally include

1. Registration
2. Sanitation—cleanliness, airspace, ventilation, drainage, sanitary conveniences.

Special regulations are made for bakehouses as regards cleanliness, proximity to closets, sleeping places, &c.; in addition there is specific legislation as regards *underground* bakehouses,- *i.e.* those the floor of which is 3 feet below the level of the roadway:—

1.—An underground bakehouse shall not be used as a bakehouse unless it was so used at the passing of the Act (17 Aug. 1901)

2.—Subject to the foregoing provision, after the 1st of January 1904, an underground bakehouse shall not be used unless certified by the District Council to be suitable for that purpose: and an underground bakehouse shall not be certified as suitable unless the District Council is satisfied that it is suitable as regards construction, light, ventilation, and in all other respects.

The number of workshops registered in the Urban District is 114, and the number of outworkers on the lists received from the various Occupiers of Factories and workshops is 190.

These are being visited and inspected to see that the requirements of the Act are carried out—in general they are found to be in a satisfactory state.

SEWERAGE AND DRAINAGE.

Most of the houses in Stroud and the Uplands are provided with water closets ; a large proportion of these are hand-flushed and are often the cause of stoppage of the drains. With the exception of some 60 houses on the South-eastern part of the town, and a few outlying houses, all are connected with the town sewers, and the sewage is delivered at the Disposal Works near the Western boundary of the District. These works are some of the oldest sewage precipitation works in the kingdom, having been constructed some 30 years ago: in the early days they were managed by a contractor and crude aluminium sulphate was used, and the liquid after subsidence, was filtered through coke. The deposit was sold for 30/- a ton. In 1892 the Local Board of Health took over the management of the Works, and at the present time cakes of alumino-ferric are placed in the stream of sewage which is then allowed to settle in tanks : the sludge is dried and is still taken away by the farmers, but the effluent,—like that from nearly all chemical precipitation works—is not satisfactory.

REFUSE DISPOSAL.

House refuse is collected by contractors twice weekly, covered carts for the purpose being provided by the Urban Council, and the collection has now to be made before 9 a.m. in the principal parts of the town. For the reception of house refuse, suitable receptables properly "constructed and furnished with a suitable covering" are required by the "Bye Laws for Nuisances."

The refuse when collected is conveyed to a "tip" near the Sewage Works.

WATER SUPPLY.

The original public water supply for Stroud was a "deep well" at The Cross, which ceased to be used some time in the 18th century. In 1839 the Improvement Commissioners deepened the well and set up an iron pump at considerable expense. But when this had been done it was found that the work of pumping was too heavy and the water was not pure for drinking purposes. In 1744 an attempt was made to provide a regular and more considerable supply by a Mr. Richard Arundel, who in that year obtained from the Lord of the Manor, (Thomas Stephens, Esq.,) the grant of a power to lay down pipes for the purpose of a water supply: this scheme was unsuccessful. Twenty-five years later, (1769), Mr. Benjamin Grazebrook—at his own expense—constructed a large round basin behind the White Hart Inn, (near the Cross), and brought water to it in leaden pipes from Gainey's Well: from this reservoir (since enlarged and now known as the Exchange Reservoir) water was distributed to certain houses below the Cross.

This Reservoir and water collected from various Springs rising on Kilmister's Estate on Stroud Hill, became the property of a Company in 1835 who supplied both the upper and lower parts of the Town: this Company constructed a circular reservoir on Stroud Hill, about 610 feet above sea level—about a mile north-east of the centre of the Town—and also a smaller covered reservoir a little lower down the hill. In 1864 the Stroud Local Board of Health bought both supplies and have since enlarged the storage capacity and extended the service. The greatest increase in the storage capacity was made in 1883, when a large covered reservoir of 2,000,000 gallons capacity was constructed on Stroud Hill between the small covered reservoir and the circular open reservoir above mentioned. These two supplies have not in times past been sufficient for the Town and so from 1890 onwards water has been obtained from the Stroud Water Company, whose works are at Chalford, and arrangements are now being made for a greatly increased supply from the same Company.

(For most of the above history I am indebted to Fisher's "Notes and Recollections of Stroud.")

The present sources of the Water Supply of Stroud are the three above mentioned, viz:—

1. Gainey's Well
2. Stroud Hill
3. Stroud Water Company

1. Gainey's Well.

This is a surface well on a large spring thrown out by the Upper Lias Clay about half way down the hill with a nearly constant yield of about 70,000 gallons a day. The water from this spring is allowed to flow by gravitation into the "Exchange Reservoir," near the Cross, (with a capacity of 40,000 gallons) by night, and is pumped by a steam engine during the day time to the small covered reservoir, known as Bird's Clock Reservoir, of 10,000 gallons capacity, in Parliament Street.

2. Stroud Hill or Upper Supply.

The gathering ground of this supply (Rivers Pollution Commission 6th Report 1874, p. 400) is an area of about 2000 yards by 100 yards on the North-west side of Stroud Hill, the water being thrown off on the outcrop of the Fuller's Earth. Collecting pipes are carried along the sides of the hill with offshoots heading into the Fuller's Earth, tanks in the fields being supplied from the pipes passing through. The water thus collected is stored in three reservoirs:—

		Capacity in gallons
1. Large Circular, open	...	1,500,000
2. Oblong, open	...	900,000
3. Large, covered	...	2,000,000
		4,400,000

Part of the water in this supply is strained through a rough gravel filter.

3. Stroud Water Company.

This Company obtains its water from a well sunk 80 feet deep with headings, near Chalford, : the well is in the Upper Lias Sands but owing to a "fault" most of the water would appear to come from the Fuller's Earth beds.

The water, mixed with lime for the purpose of softening it, is pumped into two large settling tanks: after settling, the water is pumped to a large open reservoir on Minchinhampton Common about 650 feet above sea level. The low level, including Stroud, is supplied direct from the rising main through a "reducing valve."

The character of the water from the above three supplies is very different; all three in common with all waters from the Liassic and Oolitic Strata are very hard, but (as already mentioned) the Stroud Water Company soften their water artifically before distribution thus reducing it from about 16° to 5° of hardness. (Clark's Scale).

Samples of the water from Gainey's Well, from the Upper Reservoir, and from various parts of the Town have from time to time been submitted to the County Analyst for examination; I have the results of these analyses from May 1894 to July 1902.

In such an important matter as the water supply of so large a population too great care and consideration cannot be exercised, and I have consequently gone into this matter most fully.

The water of the Upper Reservoir has varied in total hardness from 16.7° to 24 3° (on one occasion 36°):

Permanent from 5.2° to 16.°
Temporary ,, 5.8° to 20.°

Generally, the amount of Ammonia present has been very low: Nitrates were present in four out of twelve samples, in one case to the extent of 7.4 parts per 100,000.

Gainey's Well has received your careful attention: the two cottages above the well have been acquired by the Council and further alterations in their sanitary arrangements are now under consideration. The quality of the water from this spring has been very variable: its permanent hardness is somewhat higher than that of the water in the Upper Reservoirs whilst the temporary hardness is less. Nitrates have been present in each sample of this water from November 1896: it is recorded that Nitrites were present as a slight trace in May 1894. but no further mention is made of this important constituent—when present in water—until June 1901, when it was reported to be absent, and also in the two samples submitted in 1902.

The fact of Nitrates being present in such variable, and, at times, in so large quantities, must in my opinion be very carefully considered, and the question asked—"is it possible for organic matter, oxidized or unoxidized to reach our water supplies?" From the nature of our gathering grounds and character of the rocks in this neighbourhood, this question must be answered in the affirmative. Such being the case it is highly desirable that all water from these two sources should be efficiently filtered before being used as a water supply for the large population that is dependent upon it.

The question of having a constant instead of—as at present—an intermittent supply is one of possibility: the expediency of it is acknowledged by all sanitarians who clearly recognize the potential dangers of an intermittent supply; according to some engineers there is less waste on a constant than on an intermittent supply, owing to the better class fittings which then become necessary.

Offensive Trades.

Shortly after I was appointed Medical Officer of Health to your Council I was asked to report on some manure works which were alleged to cause a nuisance in their neighbouroood. I was informed that artificial manure had been manufactured at these works—formerly a brewery—for five years, (but only during the earlier months of the year, from February to May), and that during the period of manufacture serious nuisance was caused to the people living in the neighbourhood. I then expressed my opinion that the position of the works surrounded by residential property was unsuitable for such a business unless it were carried on in such a manner as to effectually prevent a nuisance arising therefrom.

It was resolved that a copy of my Report dated 21st April, 1902, be sent to the Manufacturers, and since that time no complaint has been made to me concerning the works.

Legal proceedings were taken against a horse-slaughterer and a magistrate's order obtained to prevent the recurrence of the nuisance in connection with his work and his methods of carrying it on.

INFECTIOUS DISEASES.

Complete information concerning the prevalence of the chief infectious diseases has now been available for just over 10 years, the Infectious Diseases Notification Act having been adopted in May, 1892; but so long ago as 1876 and again in 1886 there were conferences with the neighbouring authorities with reference to the isolation of cases of infectious disease. Apparently no definite result was attained on either occasion, but in 1894 a Joint Hospital Board was formed between this and the surrounding local authorities and the permanent Isolation Hospital for the three districts is now in the course of erection.

Cases of small pox have heen isolated since 1893, at first in cottages acquired for the purpose in Brick Row, then in a tent near the Workhouse and now in a permanent Iron Hospital at Stancombe, which is always available should any case be introduced.

Provision for scarlet fever has also been made by the Urban District Council separately, in an Iron Hospital and Berthon Hut: this was first used at the end of August, 1900, and 113 cases have been treated in this Hospital with one death. The Hospital was erected at a time when scarlet fever was epidemic in the town but after its establishment the number of cases began gradually to decline and the district has now been free from the disease for four months. Since the end of the epidemic, scarlet fever has been twice introduced into Stroud—on both occasions from a considerable distance: in each case the patients were removed to Hospital as soon as the nature of the illness was known, and the houses disinfected, with the result that the disease was thus limited to those already infected. Such facts as the above shew better than any further words of mine the great value that the Temporary Isolation Hospital has been to Stroud and the necessity of having it ready for occupation at any time; it is impossible to foresee when an unrecognized case or a child sickening with the disease may come into the town.

The total number of cases of notifiable infectious disease during 1902 was 35.

SCARLET FEVER.

Twenty-nine cases of this disease were notified during the year and 24 were removed to the temporary Isolation Hospital. The cases in the early part of the year were of a mild type but the later ones assumed a more serious form of the disease No death has occured.

DIPHTHERIA.

The number of cases of this disease was 4, one of which was fatal.

There were also notified during the year one case of Typhoid Fever and one case of Erysipelas.

VITAL STATISTICS

POPULATION.

The population of the Urban District and the constituent Civil Parishes enumerated at the time of the last census (1901), together with the corresponding figures for 1891 and the population estimated to the middle of 1902 is given in the following table :—

	Census		Estimated to middle of
	1891	1901	1902
Stroud C.P.	8438	7673	7579
Uplands C.P.	1380	1480	1492
Stroud U.D.	9818	9153	9071

The proportion of females to males was slightly higher at the time of the Census in 1901 than in 1891, the ratio having changed from 129·3 females to 100 males in 1891, to 130·5 to 100 in 1901. The distribution of the population according to age shews that although there are proportionately fewer children under the age of 5 years in the Urban District than in England and Wales, there is an excess of persons over 55 years to a greater extent; the result of this is that the population of the Urban District is slightly less favourably distributed as regards age than in the whole of England and Wales. Hence, to compare the corresponding death rates that of the Urban District has to be slightly reduced.

I have calculated the factor for correction for age and sex distribution in this District to be 0·9675.

BIRTHS.

The total number of births in the district during the year was 164—91 males and 73 females: of these 10 or 6·1% were illegitimate. The birth rate for the whole district was 18·1 per 1000, the average for the previous 10 years being 23·8.

The rates for the two component civil parishes Stroud and Uplands are as follows :—

	1902	Average 1898—1901
Stroud	17·8	22·15
Uplands	19·5	25·2

Accompanying this report I give two sets of statistical curves—one comparing the Urban with the surrounding Rural District and the other comparing it with England and Wales. In the curves of births it will be noticed that the birth rate has been falling more rapidly in the Urban District than in England and Wales and slightly more so than in the Stroud Rural District: the rate was almost uniformly higher than in the Rural District up to 1888, but since that year the Rural birth rate has on the whole been higher than the Urban. It would appear that this change is coincident with the developement of residential property just outside the boundaries of the Urban District.

DEATHS.

During 1902 the total deaths registered in the District were 176: of these 68 took place in the Workhouse and Hospital, 44 of which were of persons belonging to other Districts. There were 4 deaths of persons belonging to the Urban District in the County Asylum: the nett number of deaths thus becomes 136—65 males and 71 females. The rate per 1000 in 1902 is 15·0, and for the previous ten years 15·1, or corrected for sex and age distribution 14·5 and 14·6 respectively.

The Rates for Stroud and Uplands during the corresponding periods are:—

	1902	Average 1898—1901
Stroud	15·6	16·2
Uplands	12·1	11·6

No figures are available to show how far this difference in the death rate in the parishes is due to difference in the age and sex distribution; but in some measure it is probably due to the conditions of living: in support of this it was pointed out earlier in my Report that the houses in the Uplands are on the whole of a better class as shewn by the rateable value. Thus while in Stroud 27% of the houses were rated under £6 a year, only about 3% of those in the Uplands were below this value.

The curves of the death rate from 1875 to the present time shew that the general death rate has been falling more rapidly in the Urban District than in the whole of England and Wales or in the surrounding Rural District. From about 1884 onwards the curves for the Urban and the Rural District are nearly coincident; it would thus appear that relatively there has been greater improvement made in the conditions of life in the former district.

DEATHS UNDER ONE YEAR OF AGE.

The deaths of children under one year of age numbered 26, an infantile mortality (deaths per 1000 births) of 159. Three of these were illegitimate children: the infantile mortality for illegitimate children would thus be over 300, but in drawing any conclusion from the last figure it must be remembered that we are dealing with very small numbers.

The infantile mortality of the two Civil Parishes is:—

	1902	Average 1898—1901
Stroud	170	151
Uplands	103	108

Comparing the curves, it will be noticed that while the infantile mortality has not diminished in England and Wales there has been some improvement in the Urban District though not to the same extent as in the Rural District.

ZYMOTIC DISEASE.

There were four deaths in this group—one from measles, two from whooping cough and one from diphtheria—a rate per 1000 of the population of 0·44

TUBERCULAR DISEASES, INCLUDING CONSUMPTION

The number of deaths attributed to the organism of Consumption was 21, a rate per 1000 of the population of 2·3 This is a high figure, especially considering that tubercular diseases are in great measure preventible. I hope to investigate this matter during the present year and deal with it fully in my next report.

UNCERTIFIED DEATHS,

(including all those not certified by medical certificate).

The total number was 10, inquests being held in 8 cases. The ascribed causes of death were :—

INQUESTS—

1. Accidentally killed by train
2. Natural causes ; history of lung disease
3. Dislocation of neck on swing
4. Found drowned
5. Died very suddenly from apoplexy
6. Suddenly from Natural Causes, probably heart disease of long standing
7. Died suddenly from heart failure
8. Suddenly from Natural Causes : heart failure

NO INQUESTS—

1. Heart disease
2. Probably premature

Full statistical details will be found in the accompanying tables.

In conclusion, I beg to thank you for the confidence you have reposed in me by appointing me your Medical Officer of Health and for the support you have given me in carrying out the duties of my office.

I remain, Gentlemen,

Your obedient servant,

J. MIDDLETON MARTIN,

Medical Officer of Health.

Table I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1902 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				Total Deaths in Public Institutions in the District	Deaths of Non-Residents Registered in Public Institutions in the District.	Deaths of Residents Registered in Public Institutions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
				Under 1 Year of Age.		At all Ages.						
		Number.	Rate*	Number.	Rate per 1000 Births Registered.	Number.	Rate*				Number.	Rate *
1	2	3	4	5	6	7	8	9	10	11	12	13
1892	9732	236	24·25	37	157						172	17·7
1893	9662	236	24·4	34	144						145	15·0
1894	9593	239	24·9	25	105						129	13·4
1895	9525	254	26·7	29	114						145	15·2
1896	9458	201	21·3	18	90	122	12·9	21	7		115	12·2
1897	9392	239	25·4	31	130	152	16·2	23	6		146	15·5
1898	9327	205	22·0	30	147	126	13·5	19	6		120	12·9
1899	9262	216	23·3	35	162	160	17·3	20	5		155	16·7
1900	9198	204	22·2	30	147	207	22·5	76	43		164	17·8
1901	9134	213	23·3	23	108	181	19·8	64	50		131	14·3
Averages for years 1892-1901	9428	224	23·8	29	129	158	16·8	37	20		142	15·1
1902	9071	164	18·1	26	159	176	19·4	68	44	4	136	15·0

* Rates in Columns 4, 8, and 13 calculated per 1000 of estimated population.

Area of District in Acres (exclusive of area covered by water .. } 1148

		At Census of 1901.
Total Population at all ages	9,153	
Number of Inhabited Houses ..	2,003	
Average number of Persons per House	4·57	

Institutions within the District receiving sick and infirm persons from outside the District .. .. } Stroud Union Workhouse. Stroud General Hospital.

Institutions outside the District receiving sick and infirm persons from the District .. } County Asylum.

Is the Union Workhouse within the District? .. } Yes.

Table II.

Vital Statistics of separate Localities in 1902 and previous years.

Names of Localities.	Whole District.				Stroud, C.P.				Uplands, C.P.			
Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1892 ..	9732	236	172	37								
1893 ..	9662	236	145	34								
1894 ..	9593	239	129	25								
1895 ..	9525	254	145	29								
1896 ..	9458	201	115	18								
1897 ..	9392	239	146	31								
1898 ..	9327	205	120	30	7875	170	106	25	1452	35	14	5
1899 ..	9262	216	155	35	7800	177	140	31	1462	39	15	4
1900 ..	9198	204	164	30	7726	170	142	26	1472	34	22	4
1901 ..	9134	213	131	23	7652	172	115	20	1482	41	16	3
Averages of years 1898 to 1901.	9230	209	143	30	7763	172	126	26	1467	37	17	4
1902 ..	9071	164	136	26	7579	135	118	23	1492	29	18	3

Cases of Infectious Di

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						
	At all Ages.	At Ages—Years					
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 a up war
Small-pox							
Cholera							
Diphtheria	m 2 f 2 } 4		1 } 1		 1 } 1	1 1 } 2	
Membranous croup							
Erysipelas	m 1 f } 1						1
Scarlet Fever	m 13 f 16 } 29	1 } 1	6 3 } 9	5 10 } 15	1 2 } 3	 1 } 1	
Typhus Fever							
Enteric Fever	m f 1 } 1					 1 } 1	
Relapsing Fever							
Continued Fever							
Puerperal Fever							
Plague							
Totals	m 16 f 19 } 35	1 } 1	7 3 } 10	5 10 } 15	1 3 } 4	1 3 } 4	1 }

Isolation Hospital — Te

III.

fied during the Year 1902.

al cases notified in each locality.						no. of cases removed to hospital from each locality.						
2 Uplands.	3	4	5	6	7	1 Stroud.	2 Uplands.	3	4	5	6	7
2 } 2						11 12 } 23	1 } 1					
2 } 2						11 12 } 23	1 } 1					

Hospital for Scarlet Fever.

Schedule B.

Stroud Urban District Council.

Year - 1902.

Causes of Death.		All Ages		Under 1		1—5		5—15		15—25		25—65		65 and Upwards		Stroud		Uplands				In Public Institutions	
Small-pox																							
Measles	m	1	1			1	1									1	1						
	f																						
Scarlet Fever																							
Typhus Fever																							
Epidemic Influenza	m		1												1		1						
	f	1												1		1							
Whooping-cough	m	2	2	1	1	1	1									1	1	1	1				
	f																						
Diphtheria, Membranous Croup	m	1	1			1	1									1	1						
	f																						
Croup																							
Enteric Fever																							
Asiatic Cholera																							
Diarrhœa, Dysentery																							
Epidemic or Zymotic Enteritis																							
Enteritis	m	1	2	1	2											1	2						
	f	1		1												1							
Erysipelas																							
Puerperal Fever																							
Septic Peritonitis																							1
																						1	
Intermittent Fever and Malarial Cachexia																							
Tuberculosis of Meninges	m	2	4			1	2	1	2							2	4						
	f	2				1		1								2							
Tuberculosis of Lungs	m	7	13						1	3	5	4	7			6	12	1	1			1	4
	f	6						1		2		3				6						3	
Other forms of Tuberculosis	m	2	4		1		1			1	1	1	1			1	3	1	1				
	f	2		1		1										2							
Alcoholism																							
Cancer	m	2	6								1	1	3	1	2	2	4		2			3	8
	f	4								1		2		1		2		2				5	
Premature Birth	m	3	5	3	5											3	5						
	f	2		2												2							
Developmental Diseases	m	5	10	4	9	1	1									4	8	1	2				
	f	5		5												4		1					
Old Age	m	1	4											1	4	1	4					3	4
	f	3												3		3						1	
Meningitis																							
Inflammation and Softening of Brain																							
Organic Diseases of Heart	m	5	7									1	2	4	5	5	7					1	3
	f	2										1		1		2						2	
Acute Bronchitis	m	3	6	3	3				1						2	3	6						
	f	3						1						2		3							
Chronic Bronchitis	m	5	11									2	4	3	7	5	11						1
	f	6										2		4		6						1	
Lobar (Croupous) Pneumonia	m	4	6									3	4	1	2	3	4	1	2				
	f	2										1		1		1		1					
Lobular (Broncho-) Pneumonia	m	4	6	2	3	1	2							1	1	3	4	1	2				
	f	2		1		1										1		1					
Diseases of Stomach																							
Obstruction of Intestines																						1	3
																						2	
Cirrhosis of Liver	m		1										1				1						
	f	1										1				1							
Nephritis and Bright's Disease	m	2	4									1	2	1	2	1	3	1	1				
	f	2										1		1		2							
Tumours & Other Affections of Female Genital Organs																							
Accidents and Diseases of Parturition	m		2								1		1				1		1				
	f	2								1		1				1		1					
Deaths by accident or Negligence	m	2	3							1	2	1	1			2	3					3	3
	f	1								1						1							
Deaths by Suicide																							
Deaths from Ill-defined Causes	m	1	5		1							1	1		3	1	4		1				
	f	4		1										3		3		1					
Apoplexy	m	1	6											1	6	1	5		1				
	f	5												5		4		1					
All other Causes	m	11	26		1		1				2	6	13	5	9	10	23	1	3			7	17
	f	15		1		1				2		7		4		13		2				10	
ALL CAUSES	m	65	136	14	26	6	10	1	4	5	12	21	40	18	44	57	118	8	18			19	44
	f	71		12		4		3		7		19		26		61		10				5	